



AWARENESS AND ASSESSMENT OF THE RISK FACTORS ASSOCIATED WITH PEPTIC ULCER AMONG PUBLIC TRANSPORT WORKERS AT SELECTED TERMINALS IN IBADAN METROPOLIS

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ABSTRACT: *Introduction: Peptic ulcer disease remains one of the most common gastrointestinal disorders worldwide, posing significant health challenges of which Public transport drivers are particularly vulnerable. This is due to irregular eating habits, alcohol consumption, and high stressful work environment. However, awareness of peptic ulcer has been sub-optimal among commercial drivers. Objective: Hence, this study assessed the level of awareness and risk factors associated with peptic ulcer disease among public transport workers at selected motor parks in Ibadan Metropolis, Oyo State, Nigeria. Methods: A descriptive cross-sectional research design was adopted. The total population of drivers at both terminals was 175; Ojoo and Challenge terminals had 90 and 85 respectively. Taro Yamane's formula was used to determine 138 sample size. Participants were selected using a convenient sampling technique. A structured and validated questionnaire with a Cronbach's alpha reliability coefficient of 0.733 was used to collect data. Results: Response rate was 100%. Data were analysed using descriptive statistics and results presented with tables, frequencies, and simple percentages. Findings revealed that thirty percent (30.4%) of participants were aged 35-40 years. 107 (78%) had a good level of awareness of peptic ulcer's risk factors. 80.4%, 68.1% and 67.4% believed that late night eating, cigarette smoking, and alcoholism increase the risk of developing peptic ulcer disease. On lifestyle factors, 49.3% spicy foods, 56.5% regularly drink coffee or caffeinated beverages, and 50.7% never engage in regular medical checkups. Conclusion/Recommendation: The study concludes that although awareness of peptic ulcer disease among bus drivers is high, misconceptions about its causes and preventive practices remain. Hence, Regular health education, stress management programmes, and workplace-based health screenings are recommended to promote healthier lifestyles and prevent peptic ulcer disease among commercial drivers in Ibadan, Oyo State.*

KEYWORDS: Associated factors, Awareness, Commercial Transport workers, Peptic ulcer disease, Lifestyles.



STATEMENT OF PROBLEM

Peptic ulcer disease is a preventable inflammatory condition when its associated risk factors are recognized and addressed. However, awareness of these risk factors among commercial drivers remains low, a situation often attributed to occupational lifestyle factors. Despite the substantial disease burden, public awareness is limited, and many cases remain undiagnosed or receive delayed treatment. This contributes to severe complications, including gastrointestinal bleeding, perforation, and gastric cancer (Akinmoladun et al., 2021). Occupational groups such as drivers are particularly vulnerable. For example, Zhao et al. (2012) reported a 52% prevalence of peptic ulcer among taxi drivers, with risk factors including irregular dining times, consumption of spicy foods, extreme food temperatures, smoking, alcohol use, psychological stress, *Helicobacter pylori* infection, and limited knowledge of gastric health. In Nigeria, most studies on peptic ulcers have focused on clinical populations within hospital settings, leaving a critical gap regarding high-risk occupational groups such as commercial drivers. In the Ibadan metropolis, public transport workers operate under harsh conditions, including prolonged working hours, poor dietary habits, inadequate rest, and chronic stress. Preliminary observations indicate frequent alcohol consumption and indiscriminate use of over-the-counter analgesics to manage pain and stress. Additionally, evidence suggests that some people diagnosed with PUD usually attribute its symptoms to spiritual causes rather than biomedical risk factors, further delaying appropriate care-seeking (Onwukaa & Oparaocha, 2026). If these patterns continue unchecked, drivers face increased risk of chronic gastrointestinal bleeding, perforation, reduced productivity, and higher mortality. Therefore, this study aims to assess the level of awareness of peptic ulcer disease and its risk factors among commercial bus drivers in Ibadan metropolis.

Aim of the Study

The study aims to assess the level of awareness of risk factors associated with peptic ulcer disease among public transport workers at selected motor parks in Ibadan metropolis

Significance of the Study

The findings of this study may provide insight into the level of awareness of peptic ulcer among the transport workers so as to design an intervention programme that will improve their knowledge of Peptic Ulcer Disease and encourage healthier lifestyle practices. Also, government and policymakers can start public awareness of peptic ulcer disease and also provide infrastructure and treatment plans for those with peptic ulcer disease. Furthermore, the findings may inform the policy formulation on occupational health regulations in the transport sector. The public can benefit from this study as they would be enlightened on peptic ulcer and also be eager to know the risk factors that can predispose them regarding their career choice. Generally, this study would help future researchers to know the level of awareness of drivers at the selected motor parks as there is limited published evidence regarding awareness of peptic ulcer disease among commercial drivers in Oyo State.



REVIEW OF LITERATURE/THEORETICAL UNDERPINNING

Peptic ulcer disease (PUD) is an acid-peptic injury that causes mucosal breaks penetrating the submucosa, most commonly in the stomach (gastric ulcers) and proximal duodenum (duodenal ulcers). The ulcers can also occur in the oesophagus and other parts of the gastrointestinal tract. (Malik et al., 2023). Peptic ulcer disease (PUD) is a common gastrointestinal condition that primarily results from an imbalance between gastric acid and pepsin, and mucosal protective mechanisms (Badapanda et al., 2024; Zhao et al., 2024).

Globally, the prevalence of peptic ulcer disease increased from 6,434,103 in 1990 to 8,090,476 in 2019 (Ren et al., 2021). South Asia had the highest age- standardized prevalence rate of 156.62 per 100,000 population in 2019. A low age-standardized death rate was found in the high-income super-region. Among nations, Kiribati had the highest age-standardised prevalence rate of 330.32 per 100,000 population (Xin et al., 2022).

In Africa, the prevalence was 15.2%. The most common ulcer pattern was duodenal ulcer at 10.2%, followed by gastric ulcer at 5.8%, while 0.6% of cases had both types. In West Africa, the prevalence was highest 19%, which was the highest, followed by East Africa 15%, North Africa 12%, and Southern Africa, 8%. Among individual countries, Ghana reported the highest prevalence of 27%, Ethiopia 19%, and Tanzania 16%. (Abdu et al., 2025).

Nigeria has long been identified among nations with a high burden of gastrointestinal ulcers. Nwokediuko et al., (2012) as cited in Yahya (2023), documented that in Nigeria, peptic ulcer tripled in prevalence from 2.1% of cases to 6% in the two time periods and was now three times as common as duodenal ulcer. Similarly, as noted by Olarewaju et al., (2024), World Life Expectancy in 2020, reported that Nigeria was ranked 31st globally for the prevalence of peptic ulcer disease. Furthermore, Regional studies reflect similarly elevated rates. In Kano, Northern Nigeria, Bashir and Ali (2021) documented an 81% prevalence of PUD among undergraduates. Malu et al., (2020) reported an 87% prevalence in Jos, while Aboderin et al., (2017) found a 73% prevalence in the South-Western region. Additionally, Eniojukan (2021) recorded prevalence rates of 40% and 60% within a university community in Delta State.

Public transport workers, especially drivers, constitute a vulnerable occupational group because of the peculiar nature of their work. Their long working hours, irregular eating habits, frequent reliance on fast foods, high consumption of alcohol and caffeinated drinks, and exposure to stressful traffic conditions place them at an increased risk of developing peptic ulcer disease. In Nigeria, particularly in urban centers such as Ibadan metropolis, transport workers at motor parks form a large and highly active workforce whose health status directly impacts public safety and the economy. However, despite their occupational vulnerability, little attention has been given to their awareness and knowledge of PUD and its associated risk factors. Findings by Zhao et al., (2012) indicate that the prevalence of peptic ulcer among taxi drivers was 52%. Meanwhile, there is a dearth of studies among public transport workers regarding peptic ulcers.

Peptic ulcer is an inflammatory condition that is preventable if the risk factors associated with this disease are known. It has been established that *Helicobacter pylori* bacteria and prolonged use of non-steroidal anti-inflammatory drugs (NSAIDs) are the main risk factors for both gastric and duodenal ulcers (Malik et al., 2023; Zhao et al., 2024). Hence, awareness of peptic ulcer disease, its causes, and recognition of its symptoms are vital to the primary and secondary



prevention of the disease. But the level of awareness of peptic ulcer disease among bus drivers was found to be significantly low.

Several studies have shown that limited awareness and misconceptions about the causes, prevention, and treatment of PUD are common among transport workers (Ogunkeyede & Adedokun, 2020). These knowledge gaps, coupled with unhealthy coping strategies, make them more susceptible to complications of PUD such as gastrointestinal bleeding and perforation. It is therefore imperative to assess their level of awareness and identify specific risk factors prevalent among them to guide the development of targeted health education interventions and workplace health policies. The current level of awareness of peptic ulcer among bus drivers in Nigeria is low and has received no attention to date. For instance, a study among tertiary students in Kwara State found that while 78% were aware of PUD, only 0.3% identified *H. pylori* as a causative agent (Bojuwoye et al., 2021). No findings have specifically addressed awareness among bus drivers in Nigeria, although drivers, due to occupational stress and lifestyle, may be more vulnerable to the disease. This necessitates, a study on awareness and assessment of the risk factors associated with peptic ulcer among bus drivers at selected motor parks.

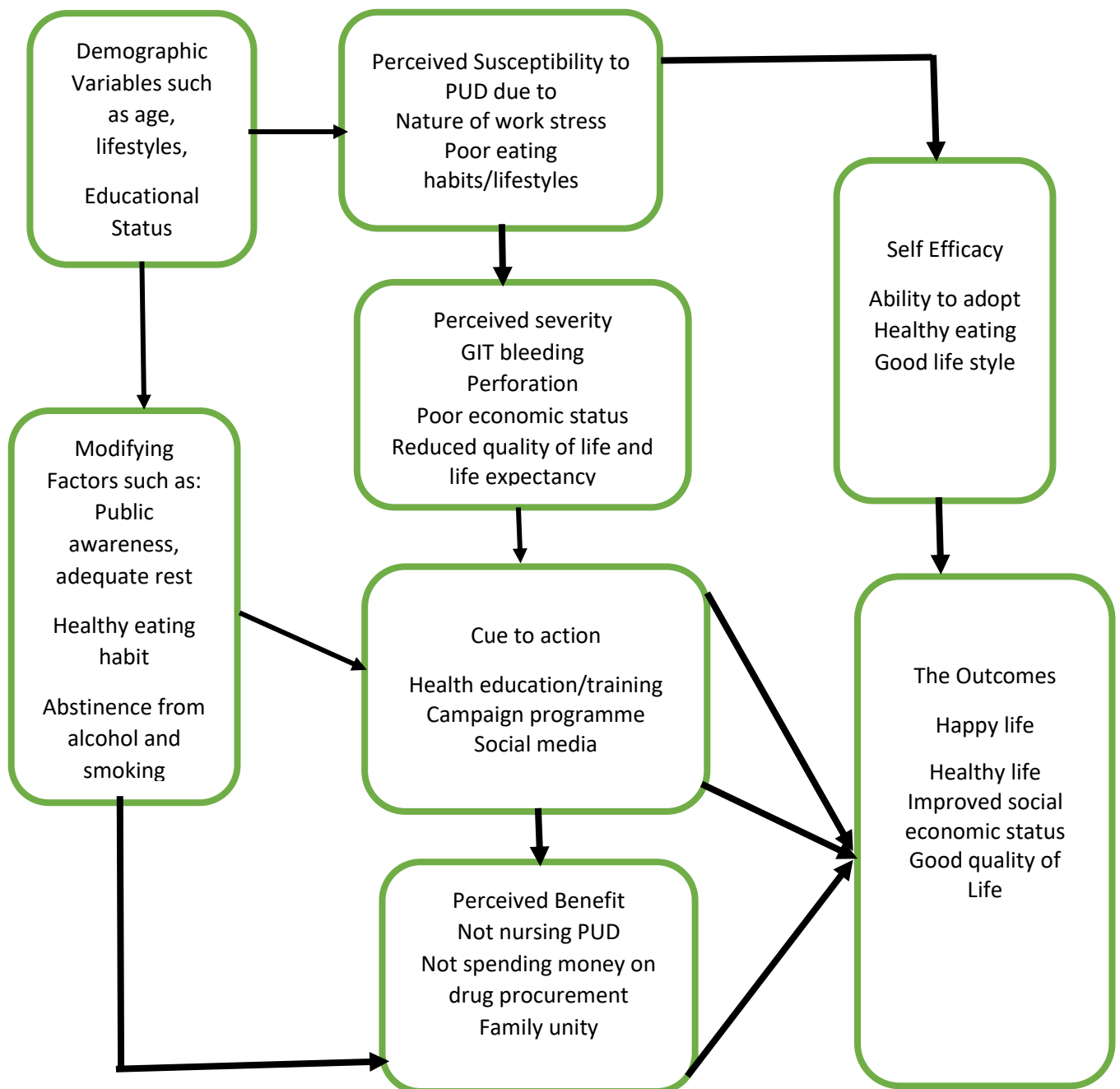
Peptic ulcer is associated with many factors as reported by Muhaibes et al., (2025) where their findings revealed that patients exposure to several risk factors, including psychological stress, consumption of spicy foods, and intake of caffeinated beverages such as tea and coffee, the use of non-steroidal anti-inflammatory drugs which has highest scores, alcohol consumption, tobacco smoking, and rapid ingestion of food that has the lowest scores. Likewise, Feruzakhan et al., (2025) in their study on the awareness and lifestyle factors associated with peptic ulcer disease among medical students revealed that irregular meal patterns were present in 87.5% of students, and 42.5% frequently consumed spicy or oily food. 50% of the participants had coffee or tea daily, and 67.5% had 1 to 2 cups per day. Stress was common among participants; 50% of them sometimes experienced stress, and 27.5% always felt it. Only 25% said they used painkillers (NSAIDs), with half of those using them rarely. This can be attributed to a rigorous pattern of medical school training which is similar to the nature of commercial bus drivers' mode of work, driving for long hours without rest and use of painkillers such as NSAIDs. Therefore there is a need to determine the level of awareness and lifestyle risks associated with peptic ulcers among this group of people.

Theoretical Framework

Health Belief Model

The health belief model served as blueprint for this study. When public transport workers understand the consequences of poor lifestyles and the factors that can make them susceptible to peptic ulcer, they will embrace lifestyle modifications and adopt health-seeking behaviour to prevent peptic ulcer. Although some constraints, such as time, cost, or misconceptions about ulcer causes may likely serve as a hindrance, actions such as Health education campaigns, advice from health workers, or peer influence can prevent it. This makes the drivers have confidence in adopting healthier habits like reducing alcohol intake, avoiding emotional stress, and eating on time.

Fig 1: Conceptual Framework Adapted from Health Belief Model (Rosentock et al., 1950)





METHODOLOGY

Research design

A descriptive non-experimental Research design was used for this study, to obtain information from the respondents.

Research settings of the study

The settings for this study were the Ojoo and Challenge terminals, Ibadan, Oyo State, located in southwestern Nigeria. It is a transportation service owned and operated by the Oyo State government. The bus terminals were built under the administration of His Excellency, Engr. Seyi Makinde to improve the transportation system in the state capital. These world-class terminals have improved the cityscape of Ojoo and challenged areas of Ibadan. This bus terminal possesses facilities such as a world-class terminal building, ticketing booth, passengers' waiting area, loading bay, ATM gallery, control tower, staff offices, conveniences, restaurants, gatehouses, refuse house, generator house, a water treatment plant, and an ample area that accommodates high-occupancy vehicles. The project has been delivered and is already in use, serving various intra-state and inter-state routes. The total estimate of drivers at the terminal is 85 and 90 drivers, respectively.

Study Population

This comprises a commercial bus driver at Ojoo and Challenge terminals in Ibadan, Oyo State.

Inclusive and Exclusive Criteria

The participants were the commercial bus drivers at Ojoo and Challenge terminals in Ibadan, who were willing and ready to participate and those between the ages of 35-60 years. The study excludes those who did not consent to participate and other terminal staff who are not bus drivers at Ojoo terminal and Challenge terminal, Ibadan, Oyo State.

Sample size determination

Taro Yamane's formula was used to determine the sample size since the size of the target populations was known (85 and 90 at Challenge and Ojoo terminals respectively). The sample size was 138 plus a 10% attrition rate.

Sample size Calculation

The total population of the study was used to calculate the sampling size using Taro Yamane's formula. $n = N / (1 + N(e)^2)$ n = sample size N = total population e = margin of error $(0.05)^2$

Total number of bus drivers at Ojoo terminal = 90

Total number of bus drivers at Challenge terminal = 85

Total population = 175 $N = e = 0.05$ $n = N / (1 + N(e)^2)$ $n = 175 / 1 + 175 (0.05)^2$ $n = 175 / 1 + 175 (0.0025)$ $n = 175 / 1 + 0.4$ $n = 175 / 1.4$ $n = 125$

Total number of respondents = 125

Hence, Attrition rate = (10percent of total population)



That is, $10\% \text{ of } 125 = 12.5$

Total sample of respondents = $125 + 12.5 = 137.5$

Therefore, 138 questionnaires will be distributed

A total of 138 questionnaire was administered to the bus drivers at Ojoo terminal and Challenge terminal in order to collect information related to the study and all questionnaire will be analysed.

Proportionate Distribution of the Participants

S/NO	Study setting	Total number of bus driver	Sample ratio	Total number of sample
1	Ojoo terminal	90	$90/175 \times 138$	71
2	Challenge terminal	85	$85/175 \times 138$	67
	Total	175		138

Sampling procedure

A convenient sampling technique was used to select the participants.

Data Collection Tools

A self-structured questionnaire was used to elicit information from the respondents for this study. The questionnaire was developed for the respondents as regards the awareness of peptic ulcer and also the risk factors associated with peptic ulcer at Ojoo terminal and Challenge terminal, Ibadan, Oyo state, Nigeria. The questionnaire was divided into four sections (A-D), which include:

SECTION A: This contains 6 items which were used to elicit information about the demographic data of the respondents which includes: Age of the drivers, Marital Status, Religion, Gender, Ethnicity, Years of Driving Experience, and Educational Attainment.

Section B: This consist 5 items which was used to elicit data about awareness of bus drivers regarding peptic ulcer disease. This were measured using Yes/No, wherein Yes-1, No-0 and the correct answer was awarded 1, while the incorrect answer was awarded 0. The minimum score was 1 and the maximum score was 5. The score was classified into poor and good level of awareness, in which 0-49% was regarded as poor level of awareness, 50-100 was regarded as good level of awareness.

Section C: This section consist 8 items was used to obtain information on risk factors associated with peptic ulcer using likert scale agree, disagree and Undecided. Agree =1, Disagree = 2, and Undecided = 3. The minimum score was 8, while the maximum score was 24. The higher the score the greater the influence on risk factors associated with peptic ulcers.

Section D: This section contains 7 items which was used to elicit information on the lifestyle that contributes to peptic ulcer disease among drivers. Likert scale Always, Sometimes, and Never was used to collect the data. Always = 1 Sometimes = 2, and Never = 3. The minimum



score was 7, while the maximum score was 21. The higher the score the greater the influence the lifestyle contributes to peptic ulcer disease among drivers.

Validity of the Instrument

Face and content validity was used to ensure accuracy and appropriateness of the questionnaire. Face validity was used to confirm if the questions are clear, understandable, and suitable for the purpose, and content validity was used to ensure that all the important areas were covered. The biostatistics expert was consulted to bridge the theoretical concepts and empirical data, ensuring the instrument were free from bias and produce results that are both scientifically robust and generalizable. Similarly, the socio-demographics expert was consulted on background variables (age, gender, education, etc.) in the research instrument. This is to ensure that the questions accurately capture the target population, prevent sampling bias, and allow for valid sub-group comparisons, which is critical for both internal and external validity. Also, the questionnaire was thoroughly scrutinized for content validity, and all the necessary corrections were made. The questionnaire was distributed after it was ascertained to be appropriate for the study.

Reliability of the Instrument

The reliability test of the instrument was conducted at the Iwo Road bus stop using 10% (14) of the sample size. The Cronbach's alpha reliability coefficient was 0.733.

Data Collection Procedure

A letter of introduction was collected from the Dean of the Faculty of Medical Surgical Nursing of Oyo State College of Nursing Sciences, Eleyele, Ibadan, Oyo State and taken to the study settings. Similarly, permission to serve the questionnaire was obtained from the terminals' managers. Self-introduction was done, informed consent was gained, study objectives, procedures, potential risks and benefits, confidentiality measures and the voluntary nature of their participation were well explained. The questionnaires were administered to the respondents, during the resting hours of bus drivers. The respondents were monitored, to ensure the questionnaires were properly filled out and copies were collected from the subjects immediately. The Content of the questionnaires were interpreted to the respondents who were not literate for effective communication. Data collection was completed over five days.

Data Analysis

Data collected were cleaned, sorted, coded and analysed with Statistical Package of Social Science (SPSS) version 25 using descriptive statistics. The results were presented in frequency percentages, tables, figures and charts.

Ethical Consideration

An introductory letter was obtained from the Head of Nursing Departments of Oyo State College of Nursing Sciences, Eleyele, Ibadan to be submitted to the two park managers. The letter was tendered to the park managers of Ojoo terminal and Challenge terminal for permission to conduct the study and to administer questionnaire to the commercial drivers in both terminals. Same was verbally approved by the park managers because the terminals did not have ethical committee as at the time this study was conducted. Hence, the written approval could not be given by the park managers. Informed consent was gained from all participants



with assurance of anonymity and confidentiality of all information provided by the respondents.

RESULTS

Demographic Characteristics

Table 1: Socio-Demographic Characteristics of Respondents (N= 138)

Variables	Category	Frequency (n)	Percentage (%)
Age	(35-40)	42	30.4
	(41-45)	20	14.5
	(46-50)	10	7.2
	(51-55)	35	25.4
	(56-60)	31	22.5
	Total	138	100.0
Gender	Male	138	100.0
	Female	-	-
	Total	138	100.0
Religion	Christianity	74	53.6
	Islam	60	43.5
	Traditional	4	2.9
	Total	138	100.0
Marital Status	Single	16	11.6
	Married	122	88.4
	Total	138	100.0
Ethnicity	Yoruba	119	86.2
	Hausa	4	2.9
	Igbo	15	10.9
	Total	138	100.0
Educational level	No Formal Education	59	42.8
	Primary	34	24.6
	Secondary	39	28.3
	Tertiary	6	4.3
	Total	138	100.0
Year of Experience	1-5 years	26	18.8
	6-10 years	24	17.5
	11-15 years	26	18.8
	16years and above	62	44.9
	Total	138	100.0

Table 1 shows the age distribution of respondents, the majority of whom were between 35 and 40 years old, accounting for 30.4% of the total population, while the minority were those between 56 and 60 years of age (22.5%). 74 (53.6%) were Christian, 60 (43.5%) practiced Islam, and 4 (2.9%) were traditional worshippers. Furthermore, findings revealed that a substantial number 122 (88.4%) were married and a greater percentage 119 (86.2%) were



Yoruba. Also, almost half 59(42.8%) had no formal education, 34 (24.6%) had primary education, 39 (28.3%) had secondary education, while only 6 (4.3%) had tertiary education. Concerning years of experience, a greater number, 62 (44.9%) had 16 years and above.

Level of awareness of Peptic Ulcer Disease

Table 2: Level of Respondents' awareness of Peptic Ulcer Disease (N=138)

Questions	Responses	Frequency (n)	Percentage (%)
Awareness about peptic ulcer	Yes	127	92.0
	No	11	8.0
	Total	138	100.0
source of information	Health workers	52	37.7
	Radio/TV	11	8.0
	Friends/Colleagues	75	54.3
	Total	138	100.0
	Total		
causes of peptic ulcer	Skipping meal	107	77.5
	Excessive alcohol	24	17.4
	Stress	7	5.1
	Total	138	100.0
	Total		
Is peptic ulcer preventable?	Yes	122	88.4
	No	12	8.7
	I don't know	4	2.9
	Total	138	100.0
Can peptic ulcer can be treated effectively?	Yes	126	91.3
	No	4	2.9
	I don't know	8	5.8
	Total	138	100.0

Table 2 shows that a large majority of respondents 127 (92.0%) indicated that they had heard about peptic ulcer disease, while only 11 (8.0%) had not which shows that awareness of the condition is relatively high within the study population. Over half 75 (54.3%) reported learning about PUD through friends or colleagues, while 52 (37.7%) obtained their knowledge from health workers, and 11 (8.0%) cited radio or television as their source. A majority 107 (77.5%) attributed it to skipping meals, followed by excessive alcohol consumption 24 (17.4%), and stress 7 (5.1%). Interestingly, none of the respondents identified *Helicobacter pylori* infection, smoking, or spiritual causes as possible contributors. This indicates a major knowledge gap about the scientifically established cause *H. pylori* and suggests the need for targeted health education to correct such misconceptions. 122 (88.4%) believed that peptic ulcer can be prevented, while a substantial proportion 126 (91.3%) agreed that peptic ulcer can be treated effectively.



Risk factors associated with peptic ulcer disease

Table 3: Response on the Risk Factors Associated with Peptic Ulcer Disease (N = 138)

Variable	Category	Frequency	Percent
Smoking cigarettes increases the risk of peptic ulcer disease.	Agreed	94	68.1
	Undecided	30	21.7
	Disagreed	14	10.1
	Total	138	100.0
Consumption of alcohol leads to peptic Ulcer disease.	Agreed	93	67.4
	Undecided	34	24.6
	Disagreed	11	8.0
	Total	138	100.0
Frequent intake of spicy food causes peptic ulcer disease.	Agreed	87	63.0
	Undecided	23	16.7
	Disagreed	28	20.3
	Total	138	100.0
Regular use of pain-relieving drugs (e.g., aspirin, ibuprofen) without prescription contributes to peptic ulcer disease.	Agreed	74	53.6
	Undecided	45	32.6
	Disagreed	19	13.8
	Total	138	100.0
Eating late at night increases the likelihood of peptic ulcer disease.	Agreed	111	80.4
	Undecided	8	5.8
	Disagreed	19	13.8
	Total	138	100.0
Stress from long hours of driving contributes to peptic ulcer disease	Agreed	36	26.1
	Undecided	14	10.1
	Disagreed	88	63.8
	Total	138	100.0
Not seeking medical care when experiencing symptoms increases the risk of complications from peptic ulcer disease.	Agreed	131	94.9
	Undecided	4	2.9
	Disagreed	3	2.2
	Total	138	100.0
Driving long hours without adequate rest can contribute to peptic ulcer disease.	Agreed	34	24.6
	Undecided	18	13.0
	Disagreed	86	62.3
	Total	138	100.0

Table 3 above present data on respondents' perception of risk factors associated with peptic ulcer disease (PUD). A majority of respondents (68.1%) agreed that smoking cigarettes increases the risk of peptic ulcer disease, while 67.4% believed that alcohol consumption leads to peptic ulcer disease. Also, 63% of respondents agreed that spicy food consumption can cause peptic ulcer disease. Furthermore, above average (53.6%) of respondents agreed that misuse of pain-relieving drugs (such as aspirin and ibuprofen) contributes to PUD. A notable number



(80.4%) of respondents agreed that eating late at night increases the likelihood of peptic ulcer disease, while only 26.1% agreed that stress from bus driving contributes to peptic ulcer disease

In contrast, almost all respondents (94.9%) agreed that not seeking medical care when experiencing symptoms increases the risk of complications from PUD. Lastly, 24.6% agreed that driving long hours without adequate rest contributes to peptic ulcer disease.

Lifestyle factors contributing to peptic ulcer disease

Table 4: Response on Lifestyle as a Factor Contributing to Peptic Ulcer Disease (N = 138)

Variable	Category	Frequency	Percent
I skip breakfast before starting work	Always	8	5.8
	Sometimes	49	35.5
	Never	81	58.7
	Total	138	100.0
I eat fewer than 3 meals per day	Always	4	2.9
	Sometimes	56	40.6
	Never	78	56.5
	Total	138	100.0
I consume fast food frequently	Always	68	49.3
	Sometimes	50	36.2
	Never	20	14.5
	Total	138	100.0
I take coffee(caffeinated beverages) regularly	Always	78	56.5
	Sometimes	46	33.3
	Never	14	10.1
	Total	138	100.0
I practice healthy eating habits (e.g balanced diet, regular eating times)	Always	97	70.3
	Sometimes	41	29.7
	never	-	-
	Total	138	100.0
Financial strains affect my eating habits	Always	35	25.4
	Sometimes	95	68.8
	Never	8	5.8
	Total	138	100.0
I engage in regular medical check-ups	Always	29	21.0
	Sometimes	39	28.3
	Never	70	50.7
	Total	138	100.0

Table 4 above shows that a majority of respondents (58.7%) never skip breakfast before starting work, while 35.5% sometimes do, and only 5.8% always skip breakfast. Likewise, above average (56.5%) of respondents never eat fewer than three meals per day, while 40.6% sometimes do, and 2.9% always eat less than three meals. However, nearly half of the respondents (49.3%) always consume fast foods, while 36.2% sometimes do, and only 14.5%

never do. Despite this, a significant proportion (70.3%) claimed to always practice healthy eating habits, while 29.7% said they do sometimes. Furthermore, a striking number (56.5%) of respondents reported taking coffee regularly, below average (33.3%) sometimes take it, and only few (10.1%) had never. A majority (68.8%) of respondents stated that financial strain sometimes affects their eating habits, 25.4% said it always does, while only 5.8% reported that finances never affect their diet. Finally, only few (21.0%) of respondents always engage in regular medical checkups, 28.3% sometimes do, while a large number (50.7%) never go for routine checkups.

Answering Research Questions

Research Question 1: What is the level of awareness of peptic ulcer disease among drivers in the selected motor parks in Ibadan metropolis?

Fig 1: Overall awareness of peptic ulcers disease among commercial transport workers

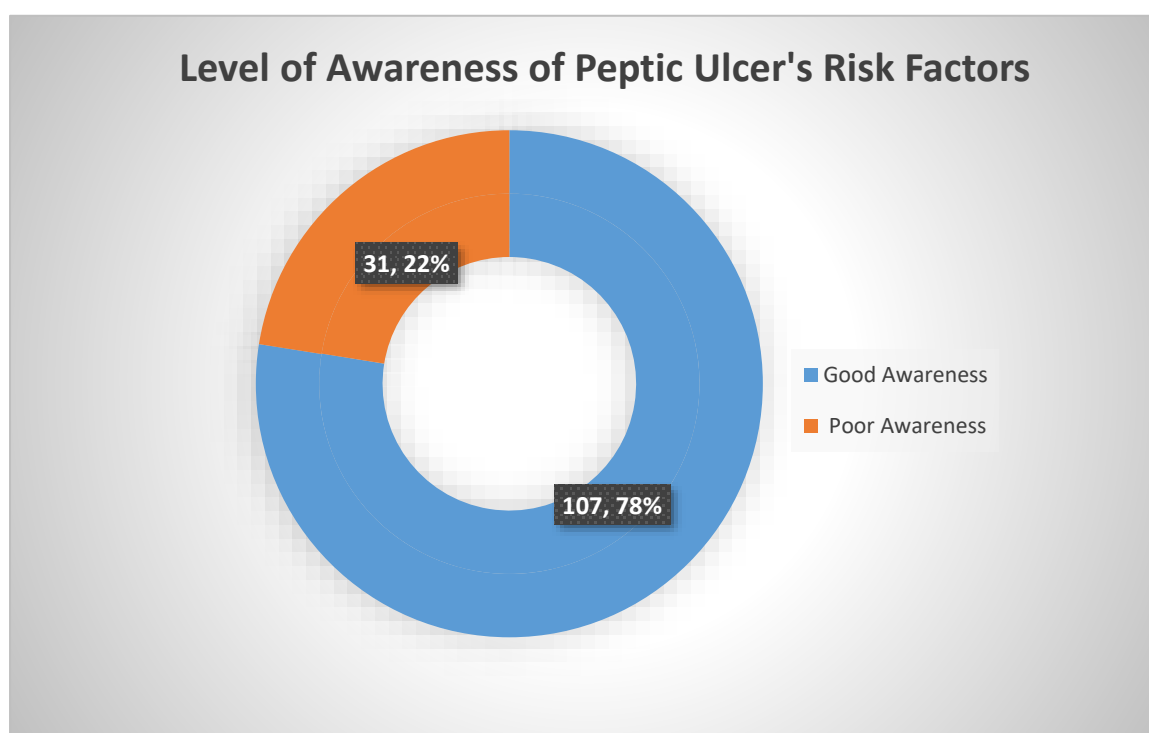
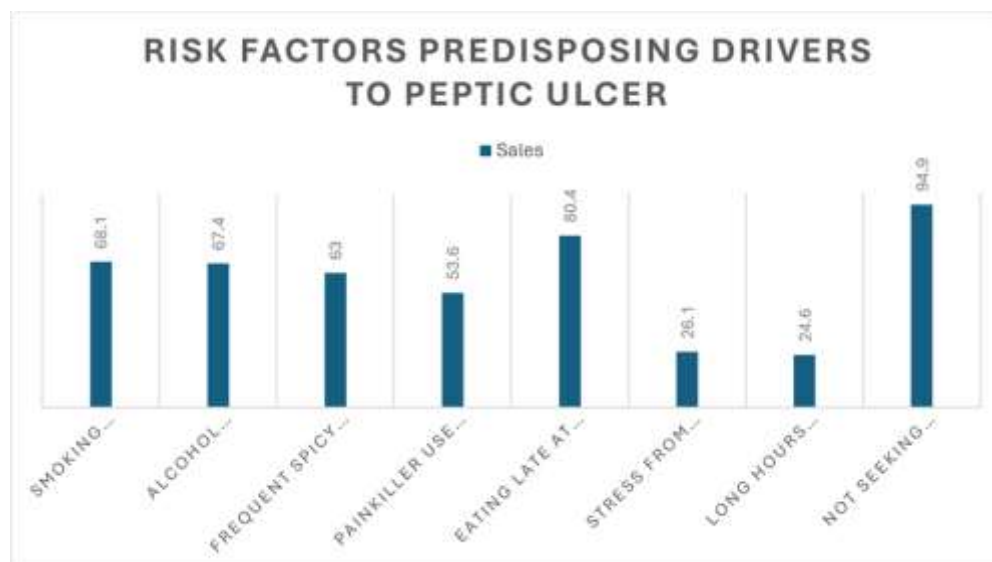


Fig.1 shows that a greater number (78%) of commercial bus drivers had a good level of awareness of peptic ulcer's risk factors, while a minority (22%) had poor awareness.

Research Question 2: What are the risk factors that predispose drivers to peptic ulcer disease in the selected motor parks in Ibadan metropolis?

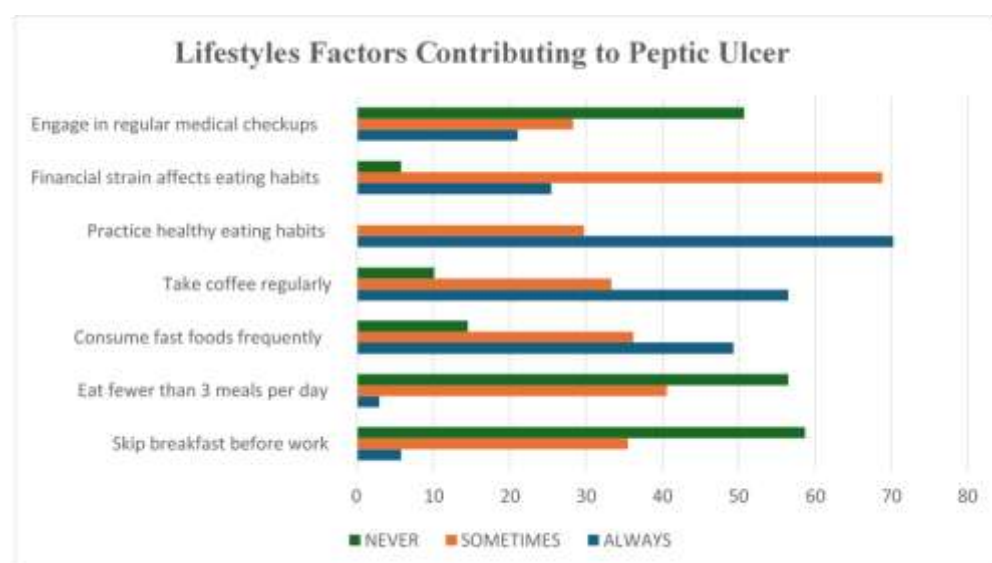
Fig. 2 Perceived risk factors associated with peptic ulcer



The findings reveal that 94.9% of the respondents believe that not seeking medical care when experiencing symptoms increases the risk of complications from peptic ulcer disease, late night eating 80.4%, cigarette smoking 68.1% and alcoholism 67.4% increase the risk of developing peptic ulcer disease. Also, stress associated with long hours driving and inadequate rest contributes to a 26.1% and 24.6% risk of peptic ulcer respectively.

Research Question 3: What are the lifestyles that contribute to peptic ulcer disease among drivers in the selected motor parks in Ibadan metropolis?

Fig 3: Lifestyle practices associated with peptic ulcer disease.



The findings show that a substantial number (70.3%) of the respondents practiced healthy eating, of which almost half (49.3%) always eat fast food, and a little above average (56.5%)



regularly drink coffee or caffeinated beverages, while a little above average (50.7%) never engaged in regular medical check-ups.

DISCUSSION OF FINDINGS

This study was conducted among 138 respondents who are commercial bus drivers in Ibadan, Oyo State. The demographic characteristics of the respondent were between the ages ranges of 35-60 years, and all of them were male; this is due to the nature of their jobs. A little above average were Christians, a minority were Muslims, while a minute number were traditional worshippers. Furthermore, a substantial number were married while the remaining were single which implies that most of the respondents had family responsibilities, which could influence their lifestyle, attitudes, and decision-making. A majority of them were of Yoruba ethnicity; this is because the study was conducted in a south-west state. A little above average had formal education, ranging from primary to tertiary institutions level. A majority of respondents possessed low levels of formal education, which has implications on their lifestyles and understanding of safety regulations, or health-related knowledge. Lastly, years of driving experience range from 1-65 years, with a majority falling within 16 and 62 years. This shows that the majority of the drivers were mature and highly experienced. This result contrasts with previous findings, in which 40.7% were male and 59.3% were female. Most of the participants (77.1%) were unmarried and (89.2%) were educated, while the age range of (18-64) was similar to the results of this study (Khaity et al., 2023). Likewise, Feruzakhan et al. (2025), in their study on the awareness and lifestyle factors associated with peptic ulcer disease among medical students, show that a greater number (62.5%) of their respondents were female, while males were in the minority (37.5%), this shows that female medical students dominate.

The study revealed that a majority (78%) of respondents had a good level of awareness about peptic ulcers. This is in tandem with the findings of Magang et al., (2025) study, where a majority of the respondents (87%) had high awareness of peptic ulcer disease, while in the findings of a study done by Feruzakhan et al., (2025), 70% of the respondents had moderate awareness of PUD. Furthermore, Bojuwoye et al., (2021), in their study conducted among tertiary students in Kwara State revealed that 78% were aware of PUD. Also, in a study conducted in Ondo State by Akintade (2025), the level of awareness was 70.3%. Likewise, a cross-sectional study conducted in Saudi Arabia by Al-Hanawi et al., (2021) reported that a substantial number of respondents had significant awareness of symptoms like heartburn (78.8%) and risk factors such as dietary habits (81.8%) and stress (77.3%). Moreover, Someili et al., (2026), in their findings, reported that 62.25% of participants demonstrated a good level of awareness. The majority of people had a high to moderate level of awareness of peptic ulcer disease. The findings across these studies suggest that awareness of PUD is generally high to moderate across diverse populations. This implies that baseline health literacy on PUD may no longer be a major gap, and future research should shift from merely assessing awareness to examining the depth, accuracy, and application of that knowledge.

The study also found that the main sources of information were friends, colleagues, and health workers, with fewer drivers obtaining their knowledge from mass media such as radio or television. This suggests that interpersonal communication remains a major channel of health information dissemination among drivers, possibly due to limited access to health education campaigns and low exposure to digital platforms. This aligns with (Ademola et al., 2021), who



reported that word-of-mouth education and peer discussions were the most common means through which informal workers in urban areas acquired health knowledge.

However, despite the high level of awareness among the respondents, misconceptions persist as some respondents still associate peptic ulcers with spiritual causes or overthinking revealing gaps in scientific understanding. Similar patterns were observed in a study by Adeyemi et al., (2019), which noted that although many Nigerians have heard of PUD, their knowledge remains low. This shows that awareness does not necessarily translate to accurate knowledge. Therefore, public health education should focus not only on raising awareness but also on correcting misinformation and improving understanding of disease mechanisms and prevention.

Risk Factors Predisposing Drivers to Peptic Ulcer Disease

The findings of the study revealed that 68.1% and 67.4% believed that smoking cigarettes and alcoholism increase the risk of peptic ulcer disease. This is in line with the findings of a study conducted by Akande et al., (2023) on substance abuse among commercial bus drivers in Nigeria, they found that 74.6% had abused psychoactive substances, with alcohol (51%) and cigarettes (27.3%) being the most common. Also, Dawood et al., (2024) in their study done among people living with peptic ulcer, reported that 34% and 57% of them were cigarette smokers and regular alcohol drinkers, respectively. Furthermore, irregular eating patterns, consumption of spicy or acidic foods, and reliance on stimulants were identified as factors contributing to PUD as 49.3% and 35.5% engaged in poor eating habits such as eating spicy food and caffeinated beverages, which are contributory factors to PUD. These findings align with Raj et al., (2025) who showed that 28.1% identified that caffeine intake as a risk factor for PUD. Maganga et al. (2025) reported that, 31% of the respondents admitted to a poor diet as the main precipitant for PUD. Feruzakhan et al., (2025), also reported that irregular meal patterns were seen in 87.5% of respondents, and 42.5% frequently consumed spicy or oily food, 42.5% frequently consumed spicy or oily food, 50% of the participants had coffee or tea daily, while 67.5% had 1 to 2 cups per day. Similarly, Bodunde et al., (2025) noted that some respondents (85.4%) had poor dietary habits, 63.4% consumed hot spicy foods, 68.3% drank carbonated beverages, 39.0% consumed fatty foods 2–3 times per week, and 29.3% consumed energy drinks, which can predispose them to PUD. These findings underscore that while awareness of behavioural risk factors for PUD is appreciable, risky lifestyle practices persist. The implication is that efforts must shift from knowledge dissemination to promoting sustained behavioural change through targeted education, clinical counseling, and supportive policies.

Furthermore, the study discovered that inadequate rest contributes to peptic ulcer risk among drivers, as 26.1% and 24.6% of the respondents believe that job-related stress and long hours driving without adequate rest are associated with peptic ulcer, respectively. These findings correlate with a study conducted by Ekechukwu et al., (2021) on Nigerian bus drivers where 73.4% highlighted high levels of job stress as a contributory factor to PUD. This finding highlights a concerning trend of poor nutrition and irregular eating among drivers, likely due to their demanding work schedules, limited access to healthy food options, and time constraints. These behaviors, combined with occupational stress, create a physiological environment conducive to ulcer development due to increased gastric acid secretion, irregular digestion, and poor recovery from fatigue. The result corroborates the findings of Akinpeloye et al., (2025), who emphasized that Nigerian transport workers face multiple occupational risk factors, including poor diet, irregular work hours, and limited healthcare access. The study



reveals that occupational stress and poor work-rest patterns are significant contributors to PUD risk among drivers. The implication is that addressing PUD in this population requires a multi-sectoral approach that combines behavioural change, workplace regulation, clinical screening, and supportive health policies. Also, occupational health interventions that target lifestyle modification and health monitoring in motor parks should be reinforced.

Lifestyle Factors Contributing to Peptic Ulcer Disease

The study also assessed lifestyle behaviours related to PUD among respondents. While 70.3% claimed to always practice healthy eating habits such as balanced diets and regular eating times, 29.7% only did so sometimes, indicating inconsistency in maintaining a healthy routine. This aligns with Raj et al., (2025) findings where most of the participants consumed three meals per day, and 28.1% of them consumed spicy food along with NSAIDs. Additionally, only 21% of respondents reported always engaging in regular medical checkups, while 50.7% admitted they *never did*, reflecting a poor attitude toward preventive health practices. Further, 53.6% identified constant use of Non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen, diclofenac, and Felvin as a contributory factor to PUD. This is in line with findings where 25.7%, 1.3%, and 25% of the respondents profess they used painkillers (NSAIDs) (Dawood et al., 2024; Feruzakhan et al., 2025). Also, Al-Zahrani et al., (2024) reported that 74% of their respondents stated at least one lifestyle-related risk factor such as stress or spicy food consumption. Dawood et al., (2024) also reported that in a study conducted in Zambia among PUD cases, 40% confirmed the use of NSAIDs. Lack of adequate rest and quality sleep is common is a common lifestyle among commercial drivers. 24.6% of the respondents reported lack of quality sleep due to long hours driving. The findings show that while awareness of healthy practices exists, lifestyle inconsistencies, poor preventive care, and occupational stressors remain key contributors to PUD risk. The implication is that reducing PUD burden will require integrated strategies that combine individual behaviour change, clinical guidance on medication use, and occupational health policies tailored to high-risk groups like commercial drivers.

IMPLICATIONS FOR RESEARCH AND PRACTICE

The findings of this study on commercial bus drivers' awareness of the risk factors associated with peptic ulcer disease have significant implications for research and the nursing profession.

- **Public Health Policy and Health Education:** The findings highlight critical gaps in health education that have direct implications for public health policy and practice. Limited awareness of peptic ulcer risk factors among drivers underscores the need for targeted, informal education programs delivered through community and workplace channels. Such programs should emphasize treatment adherence, early symptom recognition, and timely care-seeking to reduce late-stage complications.
- **Occupational Health Programs:** As part of the informal workforce, commercial drivers often lack access to structured occupational health services. Integrating periodic medical screenings, nutrition education, and risk factor counseling into transport union activities could serve as a practical strategy to reduce disease prevalence.



- **Interprofessional Collaboration:** Collaboration between nursing professionals, public health agencies, and driver unions is essential for sustainable implementation.
- **Behavioural Change Communication:** Findings support the need for tailored awareness campaigns addressing modifiable behaviours common among drivers. Key messages should focus on the risks associated with skipping meals, excessive caffeine intake, unregulated analgesic use, and poor stress management. Nurses can play a central role in designing and delivering these interventions at motor parks and union meetings.
- **Psychological Health and Health Beliefs:** The relationship between dietary practices, health beliefs, and confidence in treatment suggests that psychosocial factors significantly influence outcomes. Improving health literacy and correcting misconceptions may enhance drivers' confidence, mental well-being, and engagement with treatment regimens. This highlights an expanded role for nursing practice in counseling, health coaching, and mental health support within occupational settings.

CONCLUSION

The study concludes that although commercial drivers in Ibadan metropolis have a high level of awareness about peptic ulcer disease, their lifestyle practices and work conditions expose them to significant health risks. In general, the study underscores the need for greater emphasis on nutrition, preventive health care, and stress management among drivers to reduce the burden of peptic ulcer disease.

FUTURE RESEARCH

- **Education programme:** Intervention study on the awareness and knowledge of commercial bus drivers about peptic ulcers and risk factors.
- **Evaluation study:** evaluating the effectiveness of health education programme to how well it has improved the knowledge, attitudes, and health behaviours among commercial drivers.
- **Exploratory study:** This is to explore how cultural and spiritual beliefs shape symptom interpretation and care-seeking among drivers.
- **Longitudinal studies** to examine the impact of integrated occupational health interventions on ulcer incidence and complications would inform evidence-based policy.
- **Comparative studies** could also be conducted across different regions or occupational groups to explore variations in awareness and risk factors.



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